

**SCALING AND  
RE-ARCHITECTING  
SYSTEMS UNDER  
FIRE!**



2004

**YOU GET BUY-IN**

**YOU GET BUY-IN**

**YOU GET BUY-IN**

**YOU GET BUY-IN**

**YOU GET BUY-IN**





# VICKI KALMANOVICH

Senior Engineering  
Manager, **TomTom** 

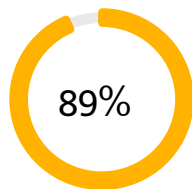


VICTORIYA KALMANOVICH



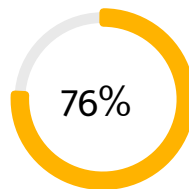
@VickiToVictory1





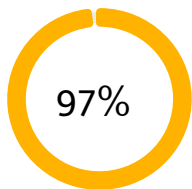
**App**  
372 Mentions

“Super easy to use ”  
“User friendly ”  
“Very intuitive”



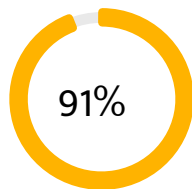
**Battery Life**  
957 Mentions

“Strong battery”  
“Outstanding”  
“Could be better ”



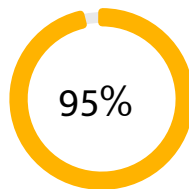
**Monitor**  
505 Mentions

“Easy to use ”  
“Works great ”  
“Accurate ”



**Comfort**  
834 Mentions

“Comfortable”  
“Super happy”  
“Big like ”



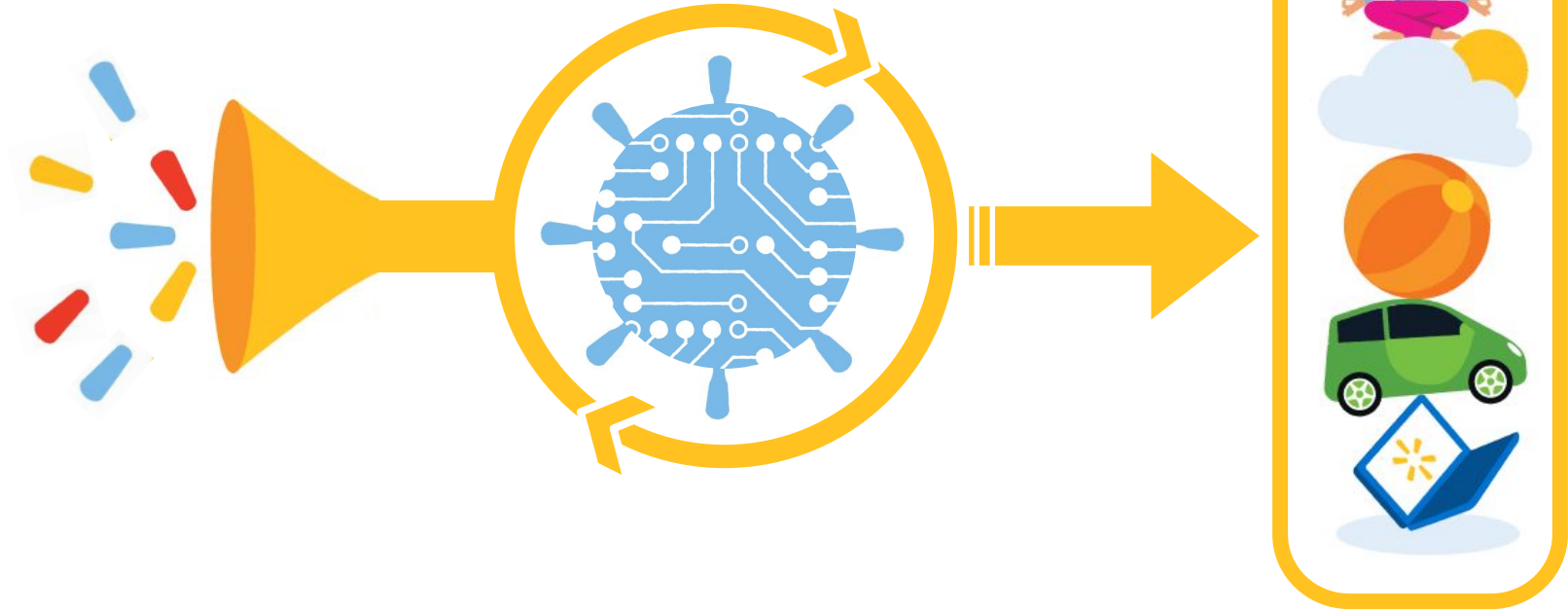
**Workouts**  
1120 Mentions

“Great for runners”  
“Accurate”  
“Recommended”

**DATA COLLECTION**

**DATA ANALYSIS**

**DATA APPLICATIONS**



# **REVIEWS COLLECTION PLATFORM**



Departments

Services

Search everything at Walmart online and in store



Reorder  
My Items



How do you want your items?

Cedar Park, 78613 Cedar Park Supercenter

Deals

Mother's Day

Grocery & essentials

Fashion

Home

## Customer reviews & ratings

4.8 out of 5

★★★★★ (738 reviews)

See all reviews

Write a review

5 stars

4 stars

3 stars

2 stars

1 star

661

38

15

4

20

\$7.94 44.1 ¢/oz

Price when purchased online

Buy now

Add

Pickup, today at Cedar

Aisle G14

Delivery from store

Shipping, arrives by t

Sold and shipped by

Free 90-day returns

Most helpful negative review







**GET BUY-IN ON EVERY  
STEP**

# AGEND A

1. GET BUY-IN ON THE PAINS
2. GET BUY-IN ON THE SOLUTIONS
3. GET BUY-IN DURING THE PROCESS

**GET BUY-IN ON THE  
PAINS**

**AVAILABILITY**

**SCALABILITY**

**RELIABILITY**





**CALLS TO  
SERVICE**

**VOLUME OF DATA**

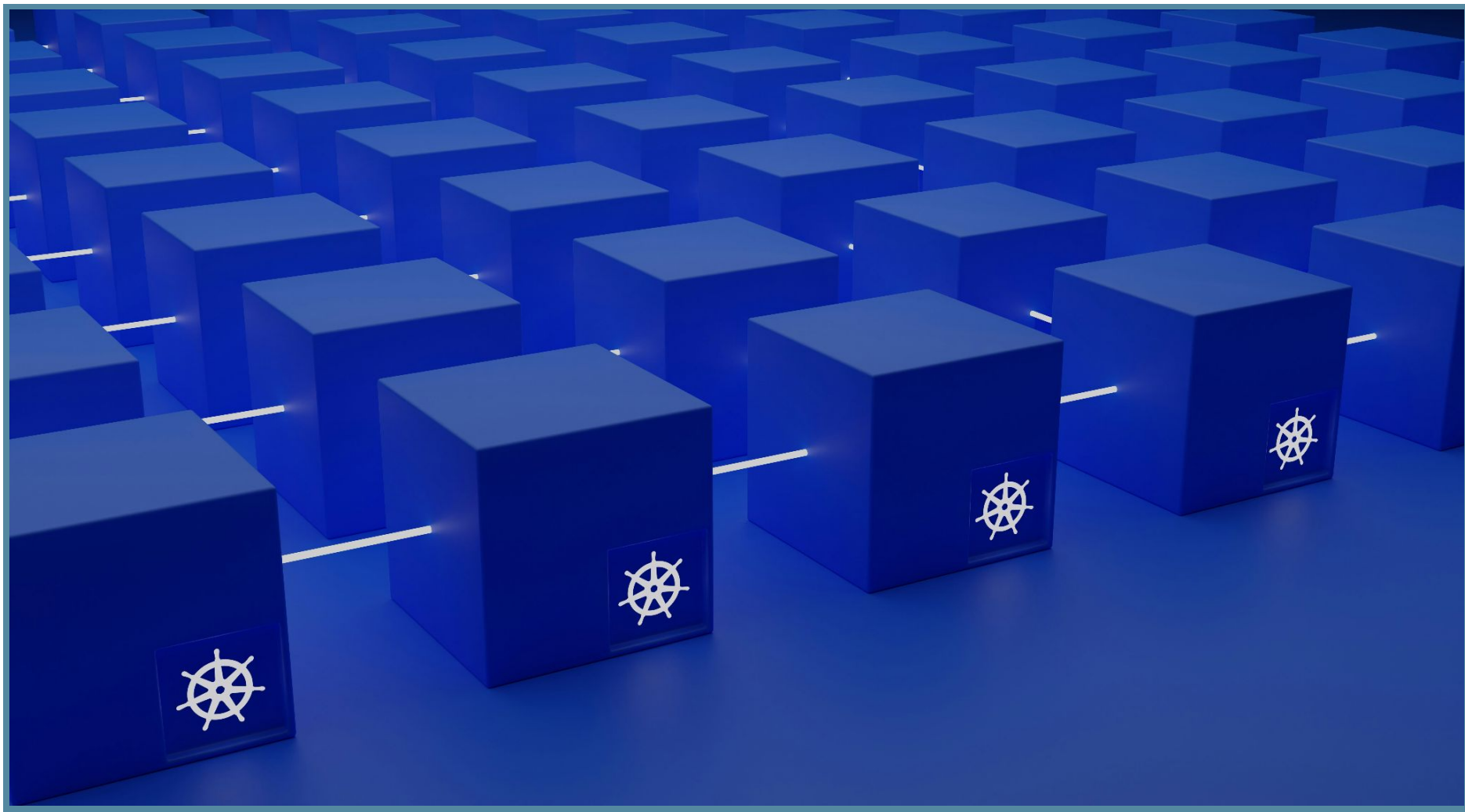
**SYSTEM  
BEHAVIOUR**



**FOCUS ON IMPACT  
AND VALUE  
PROPOSITION**

**GET BUY-IN ON THE  
SOLUTIONS**











**LEVEL OF EFFORT + IMPACT**  
**=**  
**RETURN ON INVESTMENT**

**FOCUS ON  
RETURN ON INVESTMENT**



**GET BUY-IN DURING  
THE PROCESS**



**GET BUY-IN ON EVERY  
STEP**

**POC (MOST) STUFF**



**DON'T SPREAD TOO  
THIN**



# **EXIT STRATEGY**







# GET BUY IN DURING THE PROCESS

1. COLLECT **METRICS**
2. GET THINGS **DONE**
3. BE **FLEXIBLE**

**FOCUS ON  
IMPACT DURING LONG  
TERM EFFORTS**

**GET BUY-IN ON EVERY  
STEP**



**THANK  
YOU!**



VICTORIYA KALMANOVICH

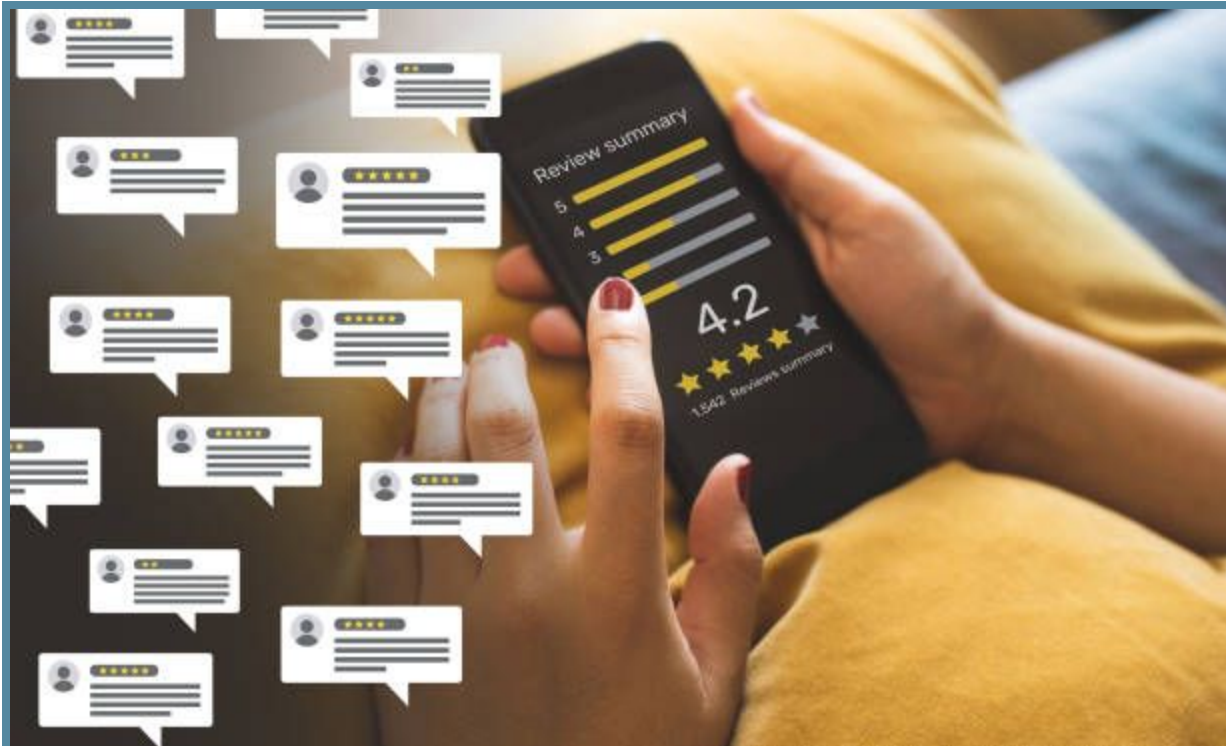


@VickiToVictory1



**Introduce queues,  
async over sync....  
More examples**







Less effort, not the great impact we anticipated (we did find bugs easier, separation of concerns helped with weird edge cases, but no improvement in scale - we wanted to utilise the microservices scaling differently components based on their usage)

extracted a heavy load service (the one with most pains around it) to be a microservice so it could be scaled up and we could serve more data faster while the rest would remain in the monolith, of course not a perfect solution and we've encountered problems with this one - but at least we now knew what helps get buy in - scale, both data volume and users served, availability and reliability.



**Infra, feature, user  
bug, data quality,  
bug from CEO – didn't  
get anything done**

**Collect metrics,  
define acceptance  
criteria, define what  
is good enough,  
understand and  
communicate  
consequences of exit  
strategy and  
choosing option A**

**For today's story I could tell you about all the technical details, the code, the architecture. But actually I'd like to talk about all of these through one main point.**

**I was working for a small  
startup that was acquired by  
Walmart. We were acquired  
for our NLP based technology.**



